

Name: Key

Day 3

AffKemmZ

Gen Chem

Final Study Guide

Day 3

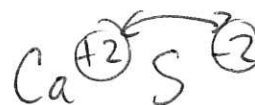
5 Bonding

1. The electrons involved in the formation of a chemical bond are called

- a) dipoles
- b) lewis electrons
- c) valence electrons
- d) s electrons

2. How many electrons are transferred between Calcium and Sulfur?

- a) none
- b) one
- c) two
- d) three



3. A chemical bond resulting from the sharing of electrons is called a(n)

- a) charged bond
- b) covalent bond
- c) james bond
- d) ionic bond

4. The correct name for LiCl is

- a) monolithium chloride
- b) lithium monochloride
- c) lithium (I) chloride
- d) lithium chloride

IONIC BONDING - non-metal + metal

No Δ to cation
ANION gets ide suffix

5. The compound PCl₃ is called

- a) triphosphorus chloride
- b) phosphorus trichloride
- c) monophosphorus trichloride
- d) phosphorus chloride

COVALENT BONDING - 2 non metals

Needs prefixes
except "mono" on
FIRST ONE

Phosphorous Tri-chloride

6. A positive ion is known as a(n)

- a) anion.
- b) cation.
- c) ionic radius.
- d) valence electron.

Ca⁺ ion

7. Anions

- a) gain electrons
- b) lose electrons
- c) gain protons
- d) lose protons

more ⁻'s than ⁺'s

8. Noble gases do not bond with other atoms because

- a) they do not have electrons
- b) they have too many electrons
- c) they have too few electrons
- d) they have enough electrons to satisfy the rule of 8

! Ne: no spare valance electrons

9. Ionic Bonds occur

- a) between non-metals
- b) between metals
- c) between metals and non-metals
- d) between Noble Gases

show valence electrons

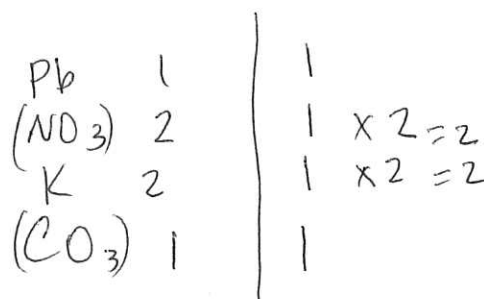
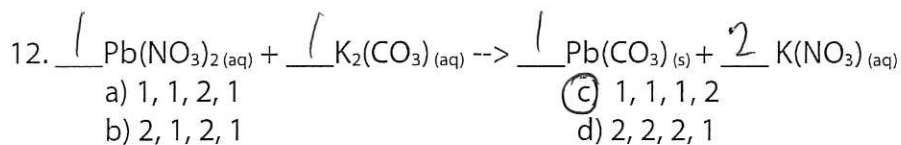
10. Elements with Covalent Bonds:

- a) share their electrons
- b) gain electrons
- c) lose electrons
- d) destroy their electrons

6 Reactions11. All of the following are clues that a chemical reaction has taken place except

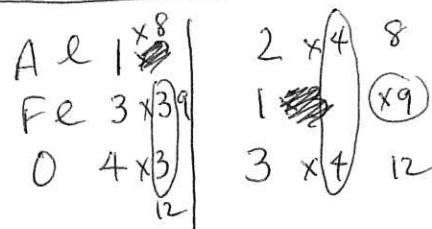
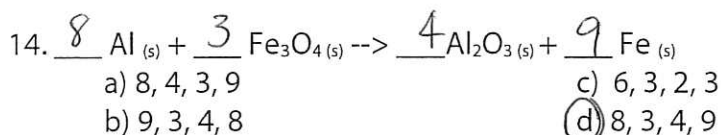
- a) a color change
 (b) the reactant is smaller
 c) bubbles form
 d) a solid forms

What are the coefficients needed to balance the following equations:



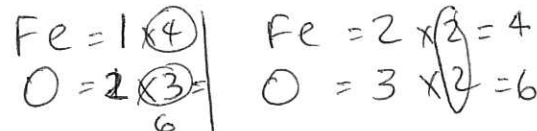
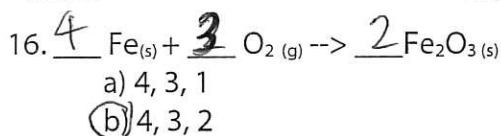
13. The above chemical reaction is:

- a) synthesis
 b) decomposition
 (c) double replacement
 d) single-replacement

PARTNERS SWITCHED

15. The above chemical reaction is:

- a) synthesis
 b) decomposition
 c) double replacement
 (d) single-replacement

Al + Fe are singles

17. The above chemical reaction is:

- (a) synthesis
 b) decomposition
 c) double replacement
 d) single-replacement

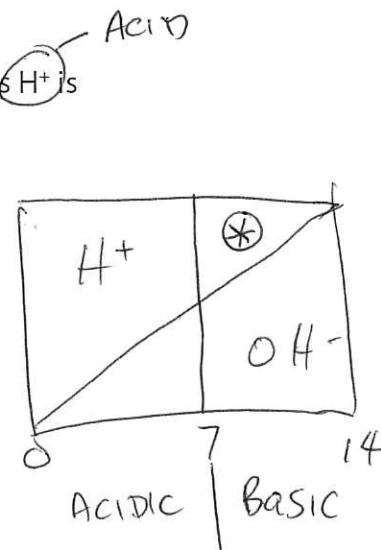
creating 1 from 2**7 Acids & Bases**

18. An acid-base titration is carried out by monitoring

- a) density
 (b) pH
 c) pressure
 d) temperature

19. A substance that ionizes nearly completely in aqueous solutions and produces H⁺ is

- (a) a strong acid
 b) a strong base
 c) a weak acid
 d) a weak base

20. If [H⁺] of a solution is less than [OH⁻], the solution

- a) is always acidic
 (b) is always basic
 c) is always neutral
 d) might be acidic, basic, or neutral

Name: _____

21. A neutral solution will have a pH of:

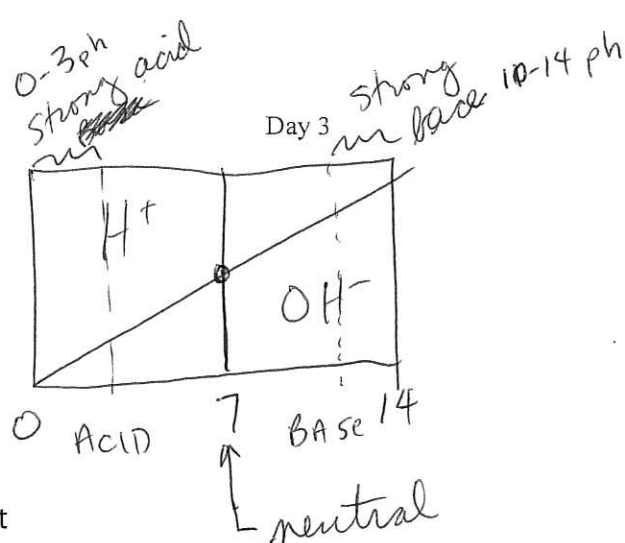
- a) 9
- ☒ b) 7
- c) 5
- d) 3

22. A strong base will have a pH of:

- a) <3
- b) <7
- c) >7
- ☒ d) >10

23. When an acid reacts with a base it yields:

- ☒ a) Water and a salt
- b) Water and a sugar
- c) Alcohol and a salt
- d) Alcohol and a sugar



8 Energy

24. The flow of energy due to a temperature difference is called

- a) energy
- ☒ b) heat
- c) work
- d) temperature
- e) None of the above

25. In an exothermic reaction Potential energy is converted to heat energy.

- a) thermal; heat
- b) kinetic; potential
- ☒ c) potential; heat
- d) thermal; potential
- e) potential; kinetic

26. The type of heat transfer that is identified through direct contact is

- ☒ a) conduction
- b) convection
- c) radiation
- d) calorimeter
- e) temperature

27. When a lamp is turned on, the electrical potential energy is changed to light radiant energy.

- a) chemical; kinetic
- b) electrical; kinetic
- c) chemical; radiant
- ☒ d) electrical; radiant

28. Heat flows from:

- ☒ a) hot to cold
- b) cold to hot
- c) equally in both directions

29. Electricity is a form of:

- a) Radiant Energy
- b) Potential Energy
- ☒ c) Kinetic Energy

30. Nuclear Fusion is a form of:

- a) Radiant Energy
 - ☒ b) Potential Energy
 - c) Kinetic Energy
- Chemical

